

SECRET

29

CIA/RR CB 60-13

NOFORN/CONTINUED CONTROL

Copy No. _____
8 March 1960

CURRENT SUPPORT BRIEF

USSR BELIEVED CAPABLE OF PRODUCING HIGHEST
GRADE OF INSTRUMENT BEARINGS

OFFICE OF RESEARCH AND REPORTS

CENTRAL INTELLIGENCE AGENCY

This report represents the immediate views of the
originating intelligence components of the Office
of Research and Reports. Comments are solicited.

W - A - R - N - I - N - G

This document contains information affecting the national defense of
the United States, within the meaning of the espionage laws, Title 18
USC, Sections 793 and 794, the transmission or revelation of which
in any manner to an unauthorized person is prohibited by law.

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NOFORN/CONTINUED CONTROL

USSR BELIEVED CAPABLE OF PRODUCING HIGHEST
GRADE OF INSTRUMENT BEARINGS

On the basis of two recent documents, it is now estimated that at least one plant in the USSR is producing miniature anti-friction bearings of a quality equal to the highest grade of precision currently attainable in the West (grade ABEC-9).*

25X1X

The question of Soviet capabilities for producing bearings of instrument quality has been unresolved for several years. Interest in this question was revived in the summer of 1959 following the report [REDACTED]

[REDACTED] on the basis of his travels in Eastern Europe, insisted that "nobody in the Bloc can make bearings for missiles, etc., that require super-precision bearings." [REDACTED], who has visited many of the bearings plants in the Bloc, agreed, stating that "super-precision bearings of the sort running up to ABEC-7 is impossible for them. These bearings which they vitally need, come from England, Germany, and Sweden, particularly the latter." Later in the summer of 1959, however, [REDACTED] suggested in a statement containing several contradictions, that "Soviet production might even have achieved as high a level as ABEC-9 for their jet aircraft production." 2/

25X1C

In September 1959, information [REDACTED] indicated that a special section of the large State Bearings Plant No. 4 in Kuybyshev had been established in late 1953 or early 1954, employing 300-400 workers who specialized in producing bearings for various precision instruments. 3/

Significant additional evidence was furnished by the report in January 1960 of an examination by a qualified US testing laboratory of three Soviet miniature ball bearings. 4/ The running accuracy of these bearings rated as ABEC-9 for radial and lateral running, and the square of bore to face. The quality and accuracy of the balls were also rated as attaining instrument precision. Although the bearing races were found to be slightly out-of-round, this defect did not affect the running accuracy of the bearings. Since the operating characteristics of these Soviet miniature bearings are equal to the highest degree of precision reached in the US, it may be concluded that at least one Soviet plant is producing precision bearings of a quality suitable for use in missiles, jet aircraft, gyros, and other precise applications.

* Bearings are graded ABEC-1 through -9, in odd numbers, in ascending order of precision. Grades ABEC-5 and above are rated as high precision quality.

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Analyst: [REDACTED]

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Sources:

1. State, Dusseldorf, Desp. 287, 18 Jun 59. OFF USE.
2. State, Salzburg, Desp. 27, 27 Oct 59. C.
3. [REDACTED]
4. [REDACTED]

25X1A

8 March 1960

CIA/RR CB 60-13

Page 3

SECRET

21 March 1960

MEMORANDUM FOR: Chief, St/P/ORR
FROM : [REDACTED] 25X1A
SUBJECT : CIA/RR CB 60-13, USSR Believed Capable of
Producing Highest Grade of Instrument Bearings
REFERENCE : St/P memo of 16 March 1960

We regret that because of [REDACTED] we are
unable to release the [REDACTED] information contained in subject
report as requested in referent memorandum. Copy #45 of
CB 60-13 is returned herewith.

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Attachment:
Cy #45, CB 60-13

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45

CIA/RR CB 60-13

NOFORN/CONTINUED CONTROL

Copy No. _____
8 March 1960

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Analyst: [REDACTED]

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Sources:

- 25X1A
1. State, Dusseldorf, Desp. 287, 18 Jun 59. OFF USE.
 2. State, Salzburg, Desp. 27, 27 Oct 59, C.
 3. [REDACTED]
 4. [REDACTED]

8 March 1960

CIA/RR CB 60-13

Page 3

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21 March 1960

MEMORANDUM FOR: Chief, St/P/ORB-
FROM: [REDACTED] 25X1A
SUBJECT: ⁰¹ CIA/RR CB 60-13, USSR Believed Capable of
Producing Highest Grade of Instrument Bearings
REFERENCE : St/P memo of 16 March 1960

25X1A 25X1C

We regret that because of [REDACTED] we are
unable to release the [REDACTED] information contained in subject
report as requested in referent memorandum. Copy #45 of
CB 60-13 is returned herewith.

Attachment:
Cy #45, CB 60-13

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16 March 1960

MEMORANDUM FOR: [REDACTED]

25X1A

ATTENTION :

FROM :

Chief, Publications Staff, ORR

25X1C

SUBJECT :

Release of Information [REDACTED]

25X1C

1. It is requested that information from the following source in CIA/RR CB 60-13, USSR Believed Capable of Producing Highest Grade of Instrument Bearings, SECRET/NOFORN/CONTINUED CONTROL, 8 March 1960 be examined to determine whether or not there is any objection to the release of this information [REDACTED]

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2. If this information is approved for release [REDACTED] this source [REDACTED] will be deleted from the bibliography before the report is forwarded to the foreign recipients.

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Attachments:

Copies 45 & 46 of CB 60-13

St/P/C:nb

○ & 1 - Addressee

1 - St/P/C

1 - Chrono

TO: Chief, Dissemination Branch, Support Staff, OCS **March 1960** *STK.S*
 FROM: Chief, Current Support Staff, ORR
 SUBJECT: Distribution of Current Support Memorandum No. _____

Brief
~~XXXXXXXXXX~~ **60-13**

(Title) _____ (Date) _____

USSR BELIEVED CAPABLE OF PRODUCING HIGHEST
GRADE OF INSTRUMENT BEARINGS Current Support Memorandum **March 1960**
 as follows:

<u>Copy No.</u>	<u>Recipient</u>	<u>Brief</u> XXXXXXXXXX 60-13
1	<u>DD/I</u>	25X1A
2- 3	<u>NIC</u>	
4	<u>AD/OCI</u> (via [REDACTED])	
5	<u>CA/SSB/OCI</u>	
6	<u>PRES/OCI</u>	
7	<u>CS/ECON/OCI</u>	
8	<u>NSAL</u>	
9	<u>INDICO/OCI</u>	
10	_____/OCI	
11	_____/OCI	
12-18	Director NSA Washington 25, D. C. Attention: [REDACTED]	25X1A
19-25	<u>St/CS/ORR</u>	
26-	Chief, St/I/D/ORR 1338 M Building	25X1A

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Distributed: 14 March 60 [REDACTED] 607
 (Date) (Initials)

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NOFORN/CC

☒ SECRET

ROUTING AND RECORD SHEET

SUBJECT: (Optional)

INSTRUMENT BEARINGS

CHB DRAFT: USSR BELIEVED CAPABLE OF PRODUCING HIGHEST GRADE OF/

FROM:

NO.

DATE

1 March 1960

CH/St/CS

TO: (Officer designation, room number, and building)

DATE

OFFICER'S INITIALS

COMMENTS (Number each comment to show from whom to whom. Draw a line across column after each comment.)

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FORWARDED

1.

Monitor

25X1A

17 Mar

2 Mar

Naf

2.

Typist

2 Mar

3 Mar

Mr

3.

Proofers

4 Mar

4 Mar

Mr 97

4.

Monitor

25X1A

4 Mar

4 Mar

Naf

5.

Author

4 Mar

4 Mar

TBH

6.

Ch/St/CS

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WZ

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Ch/ERA

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Approved For Release 2000/06/07 : CIA-RDP79T01003A000900130001-7

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NOFORN/CC

CSM No. 60-13

Date 8 Mar 60

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45-46

16 Mar 60

#45 returned, 23 Mar 60

34-44 Rel'd to CSS

24 Records Center 10 Sep 64